

## MATERIAL SAFETY DATA SHEET

24 HOUR EMERGENCY TELEPHONE CHEMTREC 1-800-424-9300

### 1. Identification:

Product identifier:	Perlan <sup>®</sup>
Recommended use:	Plant growth regulator solution for use on lilies and poinsettias
EPA Reg. No.:	62097-6-82917
Distributed by:	Fine Americas, Inc. 1850 Mt. Diablo Blvd., Suite 405, Walnut Creek, CA 94596, USA Tel: 925-932-8800

### 2. Hazard(s) identification:

EPA classification:	III
EPA signal word/precautionary statement:	CAUTION KEEP OUT OF REACH OF CHILDREN
HAZARDS TO HUMANS AND DOMESTIC ANIMALS. CAUTION: Causes moderate eye irritation. Harmful if swallowed or absorbed through skin. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse.	

### 3. Composition:

Chemical name and concentration:	Soluble concentrate containing gibberellins A4/A7 at 1.8% w/w and benzyladenine at 1.8% w/w.
CAS No.:	GA4: 468-44-0 GA7: 510-75-8 6-BA: 1214-39-7

### 4. First aid measures:

If swallowed:	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to a unconscious person.
If in eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If on skin or clothing:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

### 5. Fire fighting measures:

Extinguishing Media:	Use dry chemical, foam, CO <sub>2</sub> , water mist
Specific hazards:	May give rise to hazardous fumes in a fire. At very high temperatures will decompose to form carbon and nitrogen compounds.
Protective equipment:	Protective clothing must be worn.

### 6. Accidental release measures:

Personal precautions:	Refer to Section 8 "Exposure controls/personal protection".
Methods for cleaning up:	In case of spillage use absorbent materials, e.g. sand or sawdust. Isolate spilled material for safe disposal and collect in sealable poly-lined containers. Ventilate area.

### 7. Handling and storage:

Precautions for safe handling:	Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.  Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters or rinsate. Avoid drift on to non-target plants.
Conditions for safe storage:	Keep containers tightly closed when not in use. Store below 75°F.

**8. Exposure controls/personal protection:**

Exposure limit:	No applicable information available.
Engineering controls:	No applicable information available.
Individual protection measures:	<p>Applicators and other handlers must wear:</p> <ul style="list-style-type: none"> <li>• Long-sleeved shirt and long pants.</li> <li>• Chemical-resistant gloves.</li> <li>• Protective eyewear.</li> <li>• Socks and shoes.</li> <li>• Chemical-resistant apron when cleaning equipment, mixing or loading.</li> </ul> <p>Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE items separately from other laundry.</p>

**9. Physical and chemical properties:**

Appearance:	Clear, colorless liquid
Odor:	Alcoholic
Odor threshold:	No applicable information available.
pH (1% solution):	4.2
Melting point/freezing point:	No applicable information available.
Boiling point:	187°C
Flash point:	106°C closed cup
Evaporation rate:	No applicable information available.
Flammability:	Not flammable
Explosive limits:	No explosive properties
Vapor pressure:	29.3 Pa @ 20°C (solvent) 5.5 X 10 <sup>-6</sup> Pa (6-BAP)
Vapor density:	No applicable information available.
Relative density (D <sub>4</sub> <sup>20</sup> ):	1.04 g/ml
Solubilities:	
Water solubility @ 20°C:	Soluble
Fat solubility:	No applicable information available.
Partition coefficient:	-0.92 log P <sub>OW</sub> (solvent)
Auto-ignition temperature:	395 °C
Decomposition temperature:	No applicable information available.
Viscosity:	0.0665 Pa.s

**10. Stability and reactivity:**

Reactivity:	No applicable information available.
Chemical stability:	Stable in original containers for at least 2 years at ambient temperatures.
Possibility of hazardous reactions:	Chemical stability:
Conditions to avoid:	Excessive heat.
Incompatible materials:	Incompatible with strong oxidizing agents.
Hazardous decomposition products:	None under normal conditions of storage and use.

**11. Toxicological information:**

Routes of exposure/acute toxicity	
Oral:	LD <sub>50</sub> rat : > 2000 mg/kg
Inhalation:	LC <sub>50</sub> (4 h) rat : > 5.21 mg/l
Dermal:	LD <sub>50</sub> (4 h) rat: > 2000 mg/kg
Irritation	
Eye:	Non irritant
Skin:	Non irritant
Respiratory tract:	No applicable information available.
Corrosivity:	Not corrosive
Sensitization	
Skin:	Non-sensitizing
Carcinogenicity:	None (active ingredient)
Mutagenicity:	None (active ingredient)
Reproductive Toxicity:	None
Chronic Toxicity:	No applicable information available.

NTP/IARC/OSHA listing(s):	No applicable information available.
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**12. Ecological information:**

Ecotoxicity (6-benzylaminopurine):	<ul style="list-style-type: none"> <li>• Fish: LC<sub>50</sub> (96 hour) &gt; 100 mg/L</li> <li>• Daphnia: EC<sub>50</sub> (48 hour) 1068 mg product/l</li> <li>• Algae: EC<sub>50</sub> (72 hour) 796.6 mg product/l</li> <li>• Bird: LD<sub>50</sub> (48 hour) &gt; 2000 mg/kg</li> <li>• Bee: LD<sub>50</sub> (oral) &gt; 82 µg product per bee, LD<sub>50</sub> (contact) &gt; 100 µg product per bee</li> <li>• Beneficials: &gt; 23000 ml product/ha</li> <li>• Earthworm: &gt; 1000 mg product/kg soil dry weight</li> <li>• General: This product is expected to be non-hazardous to the environment</li> </ul>
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Mobility:	No applicable information available.
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Persistence and degradability:	Degrades rapidly under biological conditions.
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Bioaccumulation potential:	No applicable information available.
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**13. Disposal considerations:**

**Pesticide disposal:**  
Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container disposal:**  
Nonrefillable container. Do not reuse or refill this container. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**14. Transport information:**

UN number:	Not applicable
NMFC number:	101685
Class:	065
Proper shipping name:	Plant growth inhibitor, modifier or regulator
Packaging group:	Not applicable
Marine Pollutant:	Not applicable

**15. Regulatory information:**

Chemical name:	Gibberellins A4A7 and 6-benzylaminopurine
FIFRA hazards statement:	Refer to Section 2 "Hazard(s) Identification"
Signal word:	Caution
Symbol:	None

**16. Other information:**

For further information on the product and product use, refer to the product label. This version supersedes all previous versions. Prepared by Fine Americas, Inc. on the basis of the best available data. No representation is given that the information provided is complete in all respects.

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